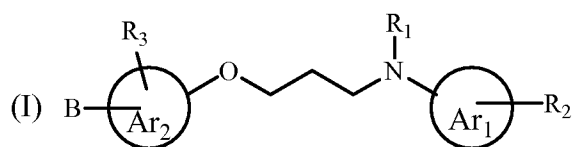


Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A compound having the structure of Formula I:



wherein

~~Ar<sub>1</sub> is selected from the group consisting of a monocyclic heteroaromatic ring structure and a bicyclic heteroaromatic ring structure~~ pyrimidine;

Ar<sub>2</sub> is selected from the group consisting of a monocyclic, a bicyclic, and a tricyclic carbocyclic aryl ring structure

R<sub>1</sub> is selected from the group consisting of

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>2</sub> is selected from the group consisting of

hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino;

a five-membered or six-membered heteroaryl ring or a six-membered aryl

ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; halogen; and perhaloalkyl;

cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>3</sub> is selected from the group consisting of hydrogen; alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring; hydroxy; halogen; amino; nitro; and cyano; and

B is a five-membered or six-membered heteroaryl ring, or  $-(CH_2)_j-C(O)OR_4$ , wherein j is 0 or 1 when Ar<sub>2</sub> is a bicyclic or tricyclic carbocyclic ring structure and j is 1 when Ar<sub>2</sub> is a monocyclic carbocyclic ring structure; and

R<sub>4</sub> is selected from the group consisting of  
hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring;

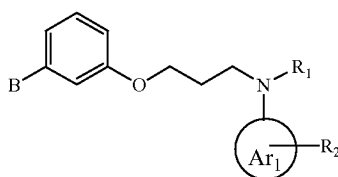
a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl;

or a pharmaceutically acceptable N-oxide, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, pharmaceutically acceptable salt, pharmaceutically acceptable ester, pharmaceutically acceptable amide, or pharmaceutically acceptable solvate thereof.

2. (original) The compound of Claim 1, wherein Ar<sub>2</sub> is selected from the group consisting of phenyl, naphthyl, anthracene, and phenanthrene.

3. (original) The compound of Claim 2, wherein Ar<sub>2</sub> is phenyl.

4. (original) The compound of Claim 3, having the structure:



5. (original) The compound of claim 2, wherein Ar<sub>2</sub> is naphthyl.
6. (original) The compound of Claim 4 or Claim 5, wherein R<sub>1</sub> is alkyl, optionally substituted with one or more optionally substituted carbocyclic or heterocyclic rings.
7. (original) The compound of Claim 6, wherein said alkyl is a lower alkyl.
8. (original) The compound of Claim 7, wherein said lower alkyl is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, and sec-butyl.
9. (original) The compound of Claim 6, wherein said carbocyclic ring is phenyl.
10. (original) The compound of Claim 9, wherein said phenyl is optionally substituted with one or more substituents selected from the group consisting of lower alkyl, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino.
11. (original) The compound of Claim 10, wherein said substituent is perhaloalkyl.
12. (original) The compound of Claim 11, wherein said perhaloalkyl is trifluoromethyl.
13. (original) The compound of Claim 1, wherein R<sub>1</sub> is alkyl substituted with 4-bis(trifluoromethyl)phenylmethyl.
14. (canceled)
15. (canceled)
16. (canceled)
17. (canceled)
18. (currently amended) The compound of any one of Claim 4 ~~and~~ or Claim 5, wherein R<sub>2</sub> is optionally substituted alkyl.
19. (original) The compound of Claim 18, wherein said alkyl is a lower alkyl.
20. (original) The compound of Claim 19, wherein said lower alkyl is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, and sec-butyl.
21. (currently amended) The compound of ~~any of~~ Claim 20, wherein R<sub>2</sub> is ethyl.
22. (original) The compound of Claim 1, wherein R<sub>3</sub> is hydrogen, halogen or optionally substituted alkyl.
23. (original) The compound of Claim 22, wherein said optionally substituted alkyl is an optionally substituted lower alkyl.
24. (original) The compound of Claim 23, wherein said optionally substituted lower alkyl is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, and sec-butyl.

25. (original) The compound of Claim 1, wherein R<sub>3</sub> is methyl.

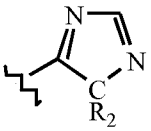
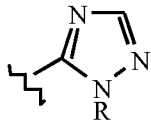
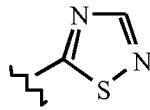
26. (original) The compound of Claim 1, wherein R<sub>3</sub> is hydrogen.

27. (original) The compound of Claim 1, wherein B and the propyloxy substituents on Ar<sub>2</sub> are ortho to each other.

28. (original) The compound of Claim 1, wherein B and the propyloxy substituents on Ar<sub>2</sub> are meta to each other.

29. (original) The compound of Claim 1, wherein B and the propyloxy substituents on Ar<sub>2</sub> are para to each other.

30. (original) The compound of Claim 1, wherein B is a heteroaryl ring selected from the group consisting of furan, thiophene, pyrrole, pyrroline, pyrrolidine, oxazole, thiazole, imidazole, imidazoline, imidazolidine, pyrazole, pyrazoline, pyrazolidine, isoxazole, isothiazole, triazole, tetrazole, thiadiazole, pyran, pyridine, piperidine, morpholine, thiomorpholine, pyridazine,

pyrimidine, pyrazine, piperazine, triazine, , , and .

31. (original) The compound of Claim 30, wherein B is a tetrazole.

32. (original) The compound of Claim 1, wherein B is  $-(CH_2)_j-C(O)OR_4$ .

33. (original) The compound of Claim 32, wherein R<sub>4</sub> is hydrogen or optionally substituted alkyl.

34. (original) The compound of Claim 33, wherein said alkyl is a lower alkyl.

35. (original) The compound of Claim 34, wherein said lower alkyl is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, and sec-butyl.

36. (original) The compound of Claim 33, wherein R<sub>4</sub> is hydrogen.

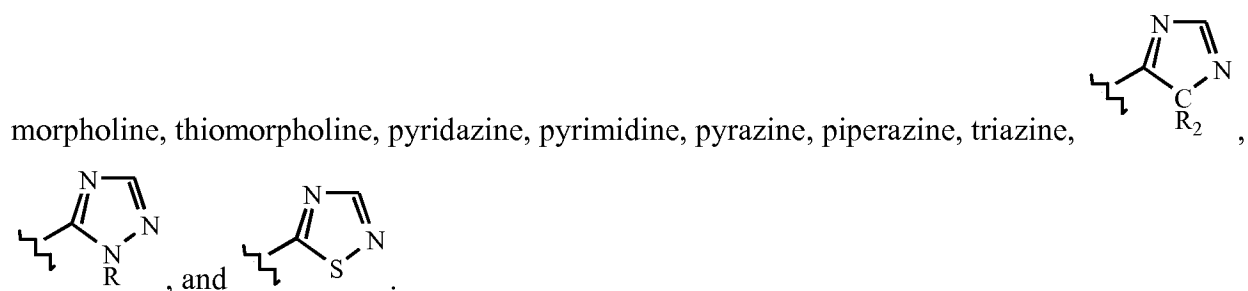
37. (canceled)

38. (canceled)

39. (canceled)

40. (canceled)

41. (currently amended) The compound of any one of Claim 4 ~~and~~ or Claim 5, wherein B is a heteroaryl ring selected from the group consisting of furan, thiophene, pyrrole, pyrroline, pyrrolidine, oxazole, thiazole, imidazole, imidazoline, imidazolidine, pyrazole, pyrazoline, pyrazolidine, isoxazole, isothiazole, triazole, tetrazole, thiadiazole, pyran, pyridine, piperidine,



42. (original) The compound of Claim 41, wherein B is a tetrazole.

43. (currently amended) The compound of any one of Claim 4 ~~and~~ or Claim 5, wherein B is –  
(CH<sub>2</sub>)<sub>j</sub>-C(O)OR<sub>4</sub>.

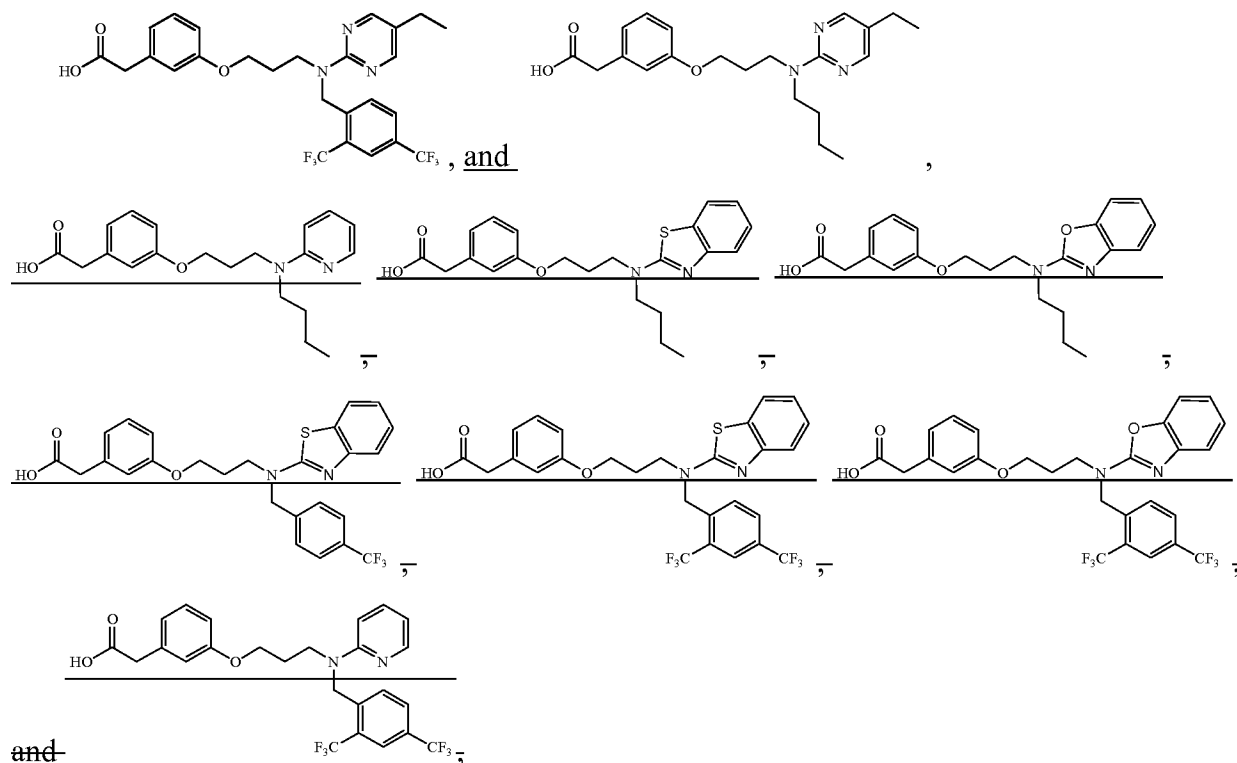
44. (original) The compound of Claim 43, wherein R<sub>4</sub> is hydrogen or optionally substituted alkyl.

45. (original) The compound of Claim 44, wherein said alkyl is a lower alkyl.

46. (original) The compound of Claim 45, wherein said lower alkyl is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, tert-butyl, and sec-butyl.

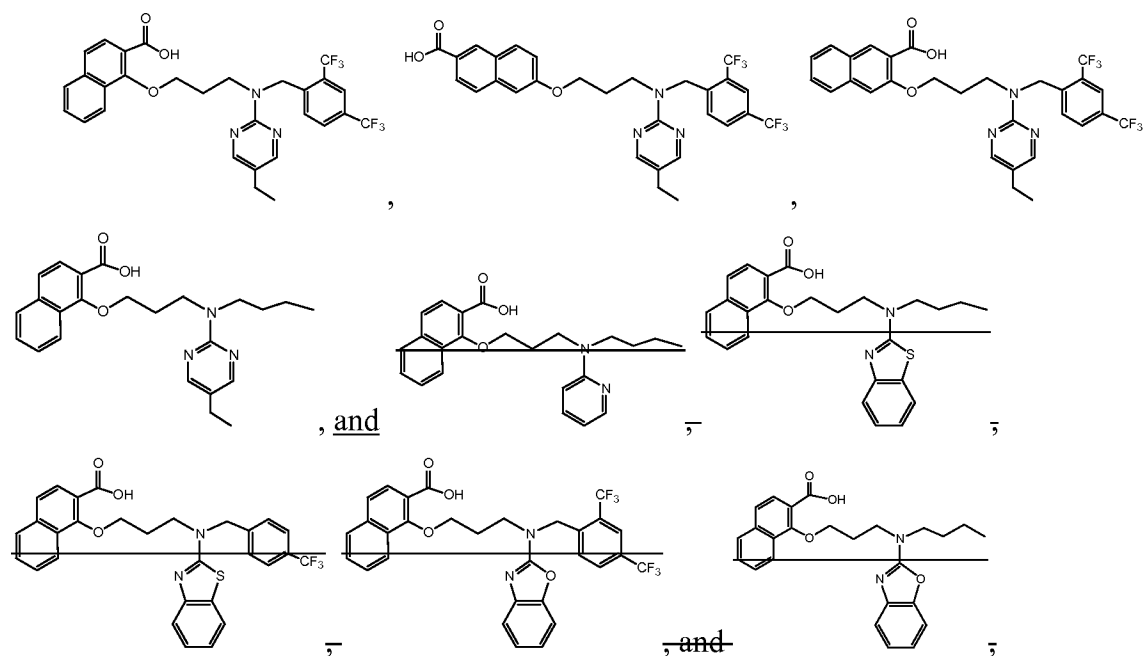
47. (currently amended) The compound of any one of Claim 4 ~~and~~ or Claim 5, wherein R<sub>4</sub> is hydrogen.

48. (currently amended) The compound of Claim 4 selected from the group consisting of:



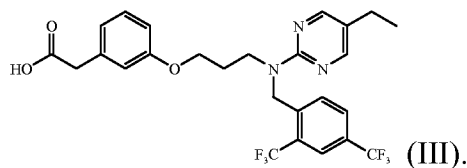
or a pharmaceutically acceptable N-oxide, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, pharmaceutically acceptable salt, pharmaceutically acceptable ester, pharmaceutically acceptable amide, or pharmaceutically acceptable solvate thereof.

49. (currently amended) The compound of Claim 5 selected from the group consisting of



or a pharmaceutically acceptable N-oxide, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, pharmaceutically acceptable salt, pharmaceutically acceptable ester, pharmaceutically acceptable amide, or pharmaceutically acceptable solvate thereof.

50. (original) A compound having the structure of Formula III:



51. (original) A method of modulating a peroxisome proliferator-activated receptor (PPAR) function comprising contacting said PPAR with a compound of Claim 1 and monitoring a change in cell phenotype, cell proliferation, activity of said PPAR, or binding of said PPAR with a natural binding partner.

52. (original) The method of Claim 51, wherein said PPAR is selected from the group consisting of PPAR $\alpha$ , PPAR $\delta$ , and PPAR $\gamma$ .

53. (original) A method of inhibiting the formation of adipocytes in a mammal comprising administering a therapeutically effective amount of a compound of Claim 1 to the mammal.

54. (currently amended) ~~The method of Claim 53,~~ A method of inhibiting the formation of adipocytes in a mammal comprising administering a therapeutically effective amount of a compound of Claim 3 to the mammal.

55. (currently amended) ~~The method of Claim 54,~~ A method of inhibiting the formation of adipocytes in a mammal comprising administering a therapeutically effective amount of a compound of Claim 4 to the mammal.

56. (currently amended) ~~The method of Claim 53,~~ A method of inhibiting the formation of adipocytes in a mammal comprising administering a therapeutically effective amount of a compound of Claim 5 to the mammal.

57. (original) A method of inhibiting the formation of adipocytes in a mammal comprising administering a therapeutically effective amount of a compound of Claim 50 to the mammal.

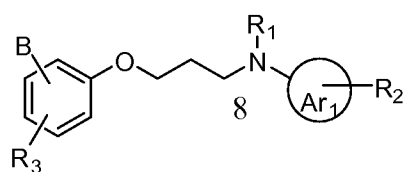
58. (cancelled)

59. (currently amended) ~~The method of Claim 58, wherein the disease is~~ A method of treating a PPAR-modulated disease or condition comprising identifying a patient in need thereof, and administering a therapeutically effective amount of a compound of Claim 1 to the patient.

60. (currently amended) ~~The method of Claim 58, wherein the disease is~~ A method of treating a metabolic disorder or condition comprising identifying a patient in need thereof, and administering a therapeutically effective amount of a compound of Claim 1 to the patient.

61. (currently amended) ~~The method of Claim 58, wherein said~~ A method of treating a disease is selected from the group consisting of obesity, diabetes, hyperinsulinemia, metabolic syndrome X, polycystic ovary syndrome, climacteric, disorders associated with oxidative stress, inflammatory response to tissue injury, pathogenesis of emphysema, ischemia-associated organ injury, doxorubicin-induced cardiac injury, drug-induced hepatotoxicity, atherosclerosis, and hypertoxic lung injury comprising identifying a patient in need thereof, and administering a therapeutically effective amount of a compound of Claim 1 to the patient.

62. (currently amended) The method of any one of Claims ~~59-61~~ 59, 60, or 61, comprising administering a therapeutically effective amount of a compound of ~~claim 3~~ having the structure of Formula II to said mammal patient: \_\_\_\_\_



## II

wherein

Ar<sub>1</sub> is pyrimidine;

R<sub>1</sub> is selected from the group consisting of

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>2</sub> is selected from the group consisting of

hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; halogen; and perhaloalkyl;

cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>3</sub> is selected from the group consisting of hydrogen; alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring; hydroxy; halogen; amino; nitro; and cyano; and

B is a five-membered or six-membered heteroaryl ring, or -CH<sub>2</sub>-C(O)OR<sub>4</sub>; and

R<sub>4</sub> is selected from the group consisting of

hydrogen;

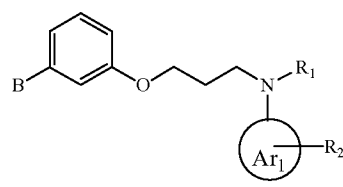


alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl;

or a pharmaceutically acceptable N-oxide, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, pharmaceutically acceptable salt, pharmaceutically acceptable ester, pharmaceutically acceptable amide, or pharmaceutically acceptable solvate thereof.

63. (currently amended) The method of any one of Claims ~~59-61~~ 59, 60, or 61, comprising administering a therapeutically effective amount of a compound ~~of claim 4~~ having the structure of Formula III to said mammal patient: \_\_\_\_\_



III

wherein

Ar<sub>1</sub> is pyrimidine;

R<sub>1</sub> is selected from the group consisting of

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>2</sub> is selected from the group consisting of

hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; halogen; and perhaloalkyl;

cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

B is a five-membered or six-membered heteroaryl ring, or -CH<sub>2</sub>-C(O)OR<sub>4</sub>; and

R<sub>4</sub> is selected from the group consisting of

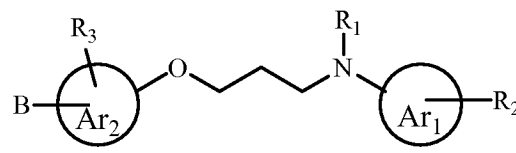
hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl;

or a pharmaceutically acceptable N-oxide, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, pharmaceutically acceptable salt, pharmaceutically acceptable ester, pharmaceutically acceptable amide, or pharmaceutically acceptable solvate thereof.

64. (currently amended) The method of any one of Claims ~~59-61~~ 59, 60, or 61, comprising administering a therapeutically effective amount of a compound ~~of claim 5~~ having the structure of Formula IV to said mammal patient:



IV

wherein

Ar<sub>1</sub> is pyrimidine;

Ar<sub>2</sub> is naphthyl

R<sub>1</sub> is selected from the group consisting of

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino; a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>2</sub> is selected from the group consisting of

hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring, halogen, perhaloalkyl, hydroxy, alkoxy, nitro, and amino; a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl; an alkoxy; halogen; and perhaloalkyl; cyano; nitro; an amino; an amido; perhaloalkyl; and halogen;

R<sub>3</sub> is selected from the group consisting of hydrogen; alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring; hydroxy; halogen; amino; nitro; and cyano; and

B is a five-membered or six-membered heteroaryl ring, or  $-(CH_2)_j-C(O)OR_4$ , wherein j is 0 or 1; and

R<sub>4</sub> is selected from the group consisting of

hydrogen;

alkyl, optionally substituted with a substituent selected from the group consisting of hydrogen, lower alkyl, optionally substituted carbocyclic or heterocyclic ring;

a five-membered or six-membered heteroaryl ring or a six-membered aryl ring, optionally substituted with one or more substituents selected from the group consisting of optionally substituted C<sub>1</sub>-C<sub>8</sub> straight-chain, branched, or cyclic saturated or unsaturated alkyl;

or a pharmaceutically acceptable N-oxide, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, pharmaceutically acceptable salt, pharmaceutically acceptable ester, pharmaceutically acceptable amide, or pharmaceutically acceptable solvate thereof.

65. (original) A method of treating a PPAR-modulated disease or condition comprising identifying a patient in need thereof, and administering a therapeutically effective amount of the compound of Claim 50 to the patient.

66. (original) A pharmaceutical composition comprising a compound of Claim 1 and a pharmaceutically acceptable diluent, excipient, or carrier.

67. (original) A pharmaceutical composition comprising a compound of Claim 3 and a pharmaceutically acceptable diluent, excipient, or carrier.

68. (original) A pharmaceutical composition comprising a compound of Claim 4 and a pharmaceutically acceptable diluent, excipient, or carrier.

69. (original) A pharmaceutical composition comprising a compound of Claim 5 and a pharmaceutically acceptable diluent, excipient, or carrier.

70. (original) A pharmaceutical composition comprising the compound of Claim 50 and a pharmaceutically acceptable diluent, excipient, or carrier.